UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

Aug. 13, 1956

Dear Josh,

I have sent you separately cultures of Sh and Sh/s.

Sh = Shigella dysenteriae ; Sh/s = Sh made resistant to streptomycin by "training". Both of these are from Joe Bertani who received the original Sh from you.

The P1kc sent previously was freed of λ by several passages on Sh.

Here are the receipes for preparing lysates:

1) Confluent lysis plates (see my transduction paper on K-12 strains for media)

To a melted soft agar tube add 10^6 P1kc and 1-2 drops of an overnight culture of the donor cells. Overlay on a thick (~45cc) plate of agar + Ca (2.5×10^{-3} M). As soon as layer hardens (~5 m) put in 37°C incubator

Plaques should be confluent at 5-7 hrs. At this time add ~4cc broth to each plate. Incubate for 2-5 hrs. further. Decant liquid, chloroform heavily, spin off debris. Keep lysate in icebox with chloroform. Before using, titrate chloroform away or erase by dilution. For some strains of K-12 it may be necessary to use as much as 10^7 phage per plate. The tricks here are in knowing when the plates are ready for the broth and in knowing when one is using too much or too little phage. Once confidence in your ability to do this is established.

2) Liquid lysates

To a young culture at $5-10 \times 10^7$/cc add a minute quantity of 5-10 Plkc and enough CaCl to bring to 2.5×10^{-3} M. Culture may clear in 3-8 hrs (or maybe ∞). This method may or may not work. Our results this way are unreliable, but it is very easy when it works.

I will not be in CSH. We are leaving on a camping trip to Colorado and New Mexico & in a few days. We return on Sept. 10.

If there is more information you need, please write me again. Hope you have good result with PI [illegible].

Sincerely,

[illegible]